

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-V • EXAMINATION – WINTER 2013

Subject Code: 151701**Date: 29-11-2013****Subject Name: Industrial Measurement****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Explain the principle, working, construction and application of bubbler system. **07**

(b) Explain the principle, working, construction and application of differential pressure method for measurement of level in closed tank. **07**

Q.2 (a) Explain the principle, working, construction and application of ultrasonic level measurement system. **07**

(b) Explain the principle, working, construction and application of microwave level switch. **07**

OR

(b) Explain the principle, working, construction and application of McLeod vacuum gauge. **07**

Q.3 (a) Explain the principle, working, construction and application of bourdon tube. **07**

(b) Explain the principle, working, construction and application of capacitance type pressure measurement system. **07**

OR

Q.3 (a) Explain the principle, working, construction and application of inclined tube manometer. **07**

(b) Explain the principle, working, construction and application of thermistor. **07**

Q.4 (a) Explain the principle, working, construction and application of three wire Wheatstone bridge circuit for temperature measurement using RTD. **07**

(b) Explain the three effects governing temperature measurement in detail. **07**

OR

Q.4 (a) Explain the principle, working, construction and application of thermopile. **07**

(b) Explain the principle, working, construction and application of orifice flow measurement. **07**

Q.5 (a) Explain the principle, working, construction and application of pitot tube. **07**

(b) Explain the principle, working, construction and application of twin turbine mass flow meter. **07**

OR

Q.5 (a) Explain the principle, working, construction and application of Electromagnetic flow measurement. **07**

(b) Explain the principle, working, construction and application of constant current type hot wire anemometer. **07**
